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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/070,529	03/06/2002	Alfred Edlinger	1712942	7029

7590

05/12/2003

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EXAMINER

ANDREWS, MELVYN J

ART UNIT

PAPER NUMBER

1742

DATE MAILED: 05/12/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

10/070,529

Applicant(s)

EDLINGER, ALFRED

Examiner

M Ivyn J. Andrews

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1742

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 06 March 2002.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 12-38 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 12-38 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.  
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).  
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 4. 6) ☐ Other: \_\_\_\_\_

## **DETAILED ACTION**

### ***Claim Objections***

The numbering of claims is not in accordance with 37 CFR 1.126 which requires the original numbering of the claims to be preserved throughout the prosecution. When claims are canceled, the remaining claims must not be renumbered. When new claims are presented, they must be numbered consecutively beginning with the number next following the highest numbered claims previously presented (whether entered or not).

Misnumbered claims 1 to 27 of the Preliminary Amendment filed March 6, 2002 have been renumbered 12 to 38 consecutively.

### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 12 to 38 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The claims are generally narrative and indefinite, failing to conform with current U.S. practice. They appear to be a literal translation into English from a foreign document and are replete with grammatical and idiomatic errors.

Regarding claims 12 and 38, the phrase "such as" renders the claim indefinite because it is unclear whether the limitations following the phrase are part of the claimed invention. See MPEP § 2173.05(d).

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Claims 12 and 38 are indefinite because the elements of the device for atomizing and granulating liquid oxide slags are not clearly set forth it is unclear that a "lance" is explicitly being claimed on line 3, what is the "cooling chamber" on lines 3 and 4 connected the "lance" or the "tundish"? the relationship of the "immersion tube" to the "tundish", "lance" or the "cooling chamber" is unclear and with what element does the "immersion tube" form the "annular gap"? the location of the "guide body" with respect to the "lance" is unclear because it is unclear that a lance has been explicitly claimed, there is no antecedent basis for the lance or the nozzle mouth on lines 6 and 7.

Claims 13 and 38 are indefinite because the location of the "coolant outlets" is not described with respect to claimed elements which form the claimed "outlet opening" in other words the outlet opening is apparently formed by at least 3 elements 6, 13 and 9 which are not claimed and thus incomplete.

Claims 21 to 31 are indefinite because only process limitations are claimed which do not further limit the device structurally.

Claims 32, 33 and 38 are indefinite because the example "in particular ..." is indefinite and there is no antecedent basis for its jacket and it is unclear that this structure i.e. the jacket is depicted in the drawing only a guide body (2) apparently is shown.

Claims 34, 35 and 38 are indefinite because the apparatus a "magnetic separator" is not disclosed in the drawing.

Claims 36 and 37 recite the limitation "lower edge" in lines 2. There is insufficient antecedent basis for this limitation in the claim.

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Claim 38 is indefinite because the expression "a slag jet formed" and the materials worked on lines 20 to 23 are indefinite because one cannot have a patent for a combination of a device and the material upon which the device works , In re Hodler 1935 CD 69.

Claim 38 is indefinite because it claims an "outlet opening" then recites a torus-shaped ring (11) this is indefinite if the ring forms the opening this is confusing and the expression "whose annular cavity" is indefinite because is unclear what apparatus forms the "cavity" also is the "cavity" the same as the "opening" ? .

Claim 38 is indefinite because the expression "coolant outlets (12) ,on line 9 are not described with respect to a specific structure of the claimed device.

Claim 38 is indefinite is because the preference on line 25 "in particular ..." is indefinite.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.

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2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claims 12, 14 and 21 to 31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Edlinger (US 6,318,123) in view Wessel (US 3,891,730).of . Edlinger discloses a device for granulating a liquid slag bath comprising a tundish with a gas lance (col.3, line 39 to col.4, line 29) but does not disclose a "guide body (2)" within the lance but Wessel discloses a method of atomizing a molten metal with a pressurized fluid which is directed through a with a hollow mandrel 4 with a plunger 5 (col.3, lines 6-29) it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the Edlinger gas lance with a plunger as taught by Wessel in order to establish an atomizing fluid is ejected with strong radially outwardly directed component of jet flow to immediately hit the molten slag to obtain a fine powder . With respect to the process limitations of Claims 21 to 31 these do not further distinguish the claimed apparatus structurally.

***Allowable Subject Matter***

Claims 13, 15 to 20 and 32 to 38 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims and if rewritten or amended to overcome the rejection(s) under 35 U.S.C. 112, second paragraph, set forth in this Office action.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Melvyn J. Andrews whose telephone number is 703-308-3739. The examiner can normally be reached on 8:00A.M. to 4:30 P.M..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Roy V King can be reached on 703-308-1146. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9310 for regular communications and 703-872-9311 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0651.



**MELVYN ANDREWS  
PRIMARY EXAMINER**

mja  
May 8, 2003